REMARKS

The Examiner has requested information to explain how certain formula listed in the patent were derived. Specifically, the Examiner requests that the Applicants identify any known publications that describe the business value creation, evaluation and calculations disclosed in the pending application on pages 14-17 and 24-26 of the pending application.

Equations on pages 14-17

Applicants derived the equations contained on pages 14-17 and 24-26 beginning with a conventional discounted present value calculation. Particularly, the conventional formula for computing the present value of $1 due in *n* periods when the interest rate per period is *i* is given by the following equation:

$$v^n = \frac{1}{(1+i)^n}$$

The above formula is a conventional formula given in financial texts, such as the following: ***Financial Compound Interest and Annuity Tables, Fifth Edition***, Gushee, Charles, Financial Publishing Company, Boston, 1971. (See p. 3, which is attached hereto as Exhibit A).

In the formula appearing on page 14 of the pending application Applicants replaced the standard present value symbol at the left-hand side of the equation:

$$v^n$$

with the symbol ("InPV") to represent the projected after-tax cash inflows (Applicants later use the symbol "OutPV" on page 15 to represent the projected after-tax cash *outflows* — but the mathematical approach is identical). In the formula, Applicants also replaced the interest rate (i) in the above formula with symbol ra_atr referring to the risk-adjusted after-tax interest rate (as explained in the application). The "conventional present value formula" given above is for computing the present value of $1 n periods hence — of course, it follows that if what is due n periods hence is $2, then the present value is twice as much — in general, one multiplies the

present value factor by the amount of the future cash flow. If that cash flow is $CashIN_i$ (representing the projected after-tax cash *inflow* in year i) then one multiplies the factor, as we have, by $CashIN_i$, as shown in the present value equation on page 14. These calculations may be repeated for each future year. Thus, for cash flows at the end of year 1 the standard formula

$$v^n = \frac{1}{(1+i)^n}$$

becomes

$$v = \frac{1}{(1+i)}$$

while for cash flows at the end of year 2, the standard formula

becomes

$$v^2 = \frac{1}{(1+i)^2}$$

Applicants expressed this repeated calculation for each successive year by using a summation formula

$$InPV = \sum_1^n CashIN_i \times \left(\frac{1}{1+ra\_atr}\right)^i$$

indicating that the product for year i

$$CashIN_i \times \left(\frac{1}{1+ra\_atr}\right)^i$$

is to be summed over years 1 to n coupled with a probability factor to get an "expectation value", i.e., outcome amount X probability of that outcome occurring. In the summation referred to above, the probability factor is added, so that the complete equation becomes:

$$InPV = \sum_1^n CashIN_i \times \left(\frac{1}{1+ra\_atr}\right)^i \times InProb$$

where InProb is, as stated in the pending application, is the probability (as assessed by the user or by management of the business enterprise) of the *inflows* occurring.

Having provided formulae for inflows (InPV) and outflows (OutPV), using arithmetic, the net present value (NetPV) is equal to InPV - OutPV (the present value of inflows less the present value of outflows), as shown on page 17.

Finally, the last equation on page 16, TotNetPV = NetPV + RealOptVal, provides a TotNetPV value that is equal to the net present value (of inflows less outflows) increased by the "real options value (if any) included in any of the enterprise's strategies." The formula for computing the RealOptVal term, as stated in the patent application, "may be determined conventionally by reference to the Black-Scholes equation." The Black-Scholes equation (which Black and Scholes published in 1973) is well-known to those skilled in the art, and is provided in standard financial texts, such as ***Black-Scholes and Beyond: Option Pricing Models***, Chriss, Neil A, McGraw Hill, New York, 1997 (see p. 152, which is attached hereto as Exhibit B).

Equations on pages 24-26

The first equation on page 24 is a variation of the present value formulae set forth above. The second equation on page 24 is a definition of "outcome variance" in a unique context, as explained in the pending application. Particularly, the variance compares a Scenario A case (A) to a base case (bc), each running from starting time t_1 to ending time t_2.

The outcome variance ($OutcomeVar_{A>bc}$) is defined as the excess of:

the total net present value for projected Scenario A at time t_2

$$TotNetPV_A$$

over the present value of the base case at time t_1

$$TotNetPV_{bc}$$

grown at a risk-adjusted after-tax rate of interest (ra_atr) from time t_1 to time t_2 — i.e., multiplied by the factor:

$$(1+ra\_atr)^{(t_2-t_1)}$$

to yield:

$$OutcomeVar_{A>bc} = TotNetPV_A - TotNetPV_{bc} \times (1+ra\_atr)^{(t_2-t_1)}$$

The third equation on page 25 is the following:

$$OutcomeComp_{B>A} = TotNetPV_B - TotNetPV_A$$

This involves the definition of another type of outcome comparison — here called:

$$OutcomeComp_{B>A}$$

Instead of measuring an "outcome variance" comparing one Scenario at time t_2 compared to a base case grown (from time t_1 to time t_2) at an assumed desired risk-adjusted after-tax interest rate (as in the first equation on page 24), one compares two "total net present values" at the same time.

To the extent that Scenario A is projected to be more valuable than Scenario B, the former's TotNetPV will exceed the latter's TotNetPV — and thus the outcome comparison is defined to be:

$$TotNetPV_B - TotNetPV_A$$

The last equation on page 26 defines of a new term ("reliability index"), unique to this patent submission:

reliability index $= PV_p/(PV_f + PV_p)$

Applicant's describe the determination of this term on p.26:

> "the present value determined for a base case scenario is segregated into those portions that are attributable to projected future events (PV_f) and those portions that are attributable to past events (PV_p). Then, . . . the reliability index is determined taking into account the relative portions of the total PV contributed by projected future events and past events."

Early action on the present application is respectfully requested. In the event that matters remain to be resolved or if the Examiner has any questions, the Examiner is invited to contact Applicants' attorney at the following address or telephone number:

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Respectfully submitted,

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